15. (Amended) [A] The composition of matter of Claim 18, [comprising the VEGF variant according to Claim 6 compounded with] further comprising a pharmaceutically acceptable carrier.

17. (Amended) An assay for identifying candidates having agonistic or antagonistic properties with respect to KDR and/or FLT receptor binding, comprising:

contacting said candidates with a polypeptide, said polypeptide comprising a vascular endothelial cell growth factor (VEGF) variant of native VEGF wherein said variant differs from native VEGF in that said variant contains at least one modification in the Kinase domain region (KDR) and/or FMS-like Tyrosine Kinase region (FLT-1) such that the binding affinity of said region(s) is modified with respect to binding affinity of KDR and or FLT-1 receptor(s) with native VEGF; [according to Claim 6] and

measuring the affect said candidate has on the binding characteristics of said polypeptide to said KDR and/or FLT-1 receptors.

18. (New) A composition of matter comprising a purified polypeptide, said polypeptide comprising a vascular endothelial cell growth factor (VEGF) variant of native VEGF wherein said variant differs from native VEGF in that said variant contains at least one modification in the Kinase domain region (KDR) and/or FMS-like Tyrosine Kinase region (FLT-1) such that the binding affinity of said region(s) is modified with respect to binding affinity of KDR and or FLT-1 receptor(s) with native VEGF.

19. (New) A nucleic acid encoding a polypeptide, said polypeptide comprising a vascular endothelial cell growth factor (VEGF) variant of native VEGF, wherein said native VEGF comprises amino acids Ile 46, Gln 79 and Ile 83 and/or Ile 43, Phe 17 and Glu 64 and said variant differs from said native VEGF by having at least one of said amino acids modified to form said variant, said polypeptide exhibiting functionally reduced binding affinity to KDR as compared to the binding affinity of native VEGF to KDR.

20. (New) The nucleic acid according to Claim 19 wherein each of said amino acids is modified.

21. (New) The nucleic acid according to Claim 19 wherein one or more of said amino acids is modified.

22. (New) The nucleic acid according to any one of Claims 19, 20, or 21 wherein the amino acid modification is a substitution by alanine.

23. (New) The nucleic acid according to Claim 19 wherein Ile 46, Ile 83, Glu 64 of said native are modified.

24. (New) The nucleic acid according to Claim 23 wherein said amino acid modification is a substitution by alanine.

25. (New) The nucleic acid according to Claim 19 wherein Phe 17, Gln 79, Ile 43 of said native are modified.

26. (New) The nucleic acid according to Claim 25 wherein said amino acid modification is a substitution by alanine.

27. (New) The nucleic acid according to Claim 19 wherein Ile 46, Gln 79, Ile 83, Ile 43 of said native are modified.

28. (New) The nucleic acid according to Claim 27 wherein said amino acid modification is a substitution by alanine.

29. (New) The nucleic acid according to Claim 19 wherein Phe 17 and Glu 64 of said native are modified.

30. (New) The nucleic acid according to Claim 19 wherein Ile 46, Gln 79, Ile 83, Ile 43, Phe 17, Glu 64 of said native are modified.

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31. (New) The nucleic acid according to Claim 19 wherein Phe 17, Ile 46, Ile 83, Glu 64 are modified.

32. (New) The nucleic acid according to Claim 19 wherein Ile 43, Ile 46, Ile 83, Glu 64 of said native are modified.

33. (New) The nucleic acid according to Claim 29, 30, 31 or 32 wherein said amino acid modification is a substitution by alanine.

Remarks

Claims 15-33 are now under consideration in this case. An Appendix with these claims (as herein amended) is attached for the Examiner's convenience.

CONCLUSION

Applicants submit that the claims are in condition for allowance and earnestly solicit such allowance.

Respectfully submitted,

FLEHR, HOHBACH, TEST,
ALBRITTON & HERBERT LLP

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Dolly A. Vance
Reg. No. 39,054

Four Embarcadero Center
Suite 3400
San Francisco, CA 94111-4187
Telephone: (415) 781-1989
Date: January 5, 2000